



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 4  
ATLANTA FEDERAL CENTER  
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ATLANTA, GEORGIA 30303-8960

August 8, 2016

Mr. Mickey T. Sugg  
U.S. Army Corps of Engineers  
Wilmington District  
69 Darlington Avenue  
Wilmington, North Carolina 28403

**Subject: EPA Review Comments on the Final Environmental Impact Statement (FEIS) for the Figure Eight Island Shoreline Management Project, Figure Eight Island, NC; CEQ #20160148**

Dear Mr. Sugg:

The U.S. Environmental Protection Agency (EPA) has reviewed the subject U.S. Army Corps of Engineers' (Corps) FEIS in accordance with our responsibilities under Section 102(2)(C) of the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act. It is our understanding that this FEIS features an evaluation of the environmental consequences of a proposed management plan which includes the installation of a terminal groin structure and to conduct supplemental beach nourishment on approximately 4,500 linear feet of oceanfront beach and 1,400 linear feet of back barrier shoreline on Figure Eight Island, N.C. The EPA understands that the Figure Eight Beach Homeowners Association is seeking Federal and State permits to allow development of this management plan.

The EPA reviewed the Draft Environmental Impact Statement (DEIS) for the subject project and provided comments in a letter dated June 28, 2012. Our comments on the previous EIS were related to proposed disposal areas, protection of hard bottom areas, and compliance with State water quality standards, water quality monitoring, threatened and endangered species consultation, and avoidance of the Wild Dayrell ship wreck. The Corps subsequently released a Draft Supplemental Environmental Impact Statement (DSEIS) and the EPA provided comments on the DSEIS on September 14, 2015. Two new alternatives were added to the DSEIS, which analyzed multiple terminal going orientations and multiple sources of fill material. Our comments on the DSEIS focused on potential impacts to water quality, wetlands, threatened and endangered species and essential fish habitat, consideration of sea-level rise and climate change impacts on the proposed project.

The EPA acknowledges the separate detailed responses to comments provided in Appendix I of the FEIS. The EPA has reviewed Appendix I and the revised text in the FEIS and has remaining environmental concerns relating to project's benefit/cost, the project need, how the alternatives were analyzed, the potential impacts to wetlands, the potential impacts to critical habitat of

threatened and endangered species, the potential impacts to water quality, and consideration of greenhouse gas (GHG) emissions from the proposed activities. Based on our review of the FEIS and positions taken by resource agencies relating to piping plover critical habitat impacts, the EPA believes that the applicant's preferred alternative (Alternative 5D) is not the environmentally preferred alternative and suggests that the Corps not select Alternative 5D as the preferred alternative. Based upon our review of the EISs, the EPA considers either Alternative 1 or Alternative 4 as the environmentally preferred alternative. We have enclosed detailed comments for your consideration (See enclosure).

The EPA appreciates the opportunity to review this FEIS. We request that the Corps provide specific responses in the Record of Decision (ROD) to our outstanding environmental concerns. We also request that the Corps provide the EPA with a copy of the final signed ROD. Should the Corps have questions regarding our comments, please feel free to contact Mr. Dan Holliman of my staff at (404) 562-9531 or [holliman.daniel@epa.gov](mailto:holliman.daniel@epa.gov).

Sincerely,



Christopher A. Militscher  
Chief, NEPA Program Office  
Resource Conservation and Restoration Division

Enclosure

**Enclosure**  
**EPA Detailed Comments**  
**Figure Eight Island Shoreline Management Plan FEIS**  
**Figure Eight Island, NC; CEQ #20160148**

**Project Benefit/Cost Information**

The EPA notes that the total property that would be impacted allowing natural erosion processes to take place (no action) is estimated at 12.4 million dollars.<sup>1</sup> It is also stated that the losses would most likely be less than this number because the remaining property would still hold value. The EPA reviewed Appendix G – Economics section and notes that Table 1 – properties currently protected by sandbag revetments totals the properties in danger at approximately 14.2 million dollars. The EPA is unclear on why these numbers might differ. The EPA also notes that the 30-year implementation cost for the applicant's preferred alternative (alternative 5D) is stated in the EIS main document as approximately 23.5 million dollars.<sup>2</sup> However, this same number is estimated at 26.07 million dollars in Appendix G.<sup>3</sup> It remains unclear why these numbers differ. In addition, the EPA reviewed Appendix G and Appendix B – Engineering Report – and notes that it is very difficult to determine where the scarp lines will be under each alternative and which properties will be impacted/protected under each alternative. This type of information is paramount to understanding: why the project is needed, how each alternative performs over the life of the project, and which properties will be protected.

**Recommendation:** The EPA believes that the current presentation in the FEIS of the project benefit/cost and which properties are endangered/protected under each alternative scenario is unclear and that the Corps provide clarity to these issues in the Record of Decision (ROD).

**Project Need**

The EPA remains concerned that the project purpose has not been clearly articulated in the FEIS. For example, it is stated on p. 33 that the *implementation costs for Alternative 1 was based on the assumption that ten (10) of the threatened homes would be relocated and thirty (30) homes demolished*. Alternative 1 is the no action alternative which is the "status quo" or "baseline" alternative. The loss of this many structures and lots help better understand the long-term erosional situation at the island, yet, it is unclear from the EIS where these numbers were derived. No figure or map is provided in the main body of the EIS that clearly shows the short and long-term scarp line for the no action alternative. The EPA is concerned that the property loss listed under the no action alternative is un-substantiated and this lack of clarity might undermine the overall project need.

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<sup>1</sup> Table 2.2 – p. 26.

<sup>2</sup> Table 3.12b – p. 100

<sup>3</sup> P. 27 – Appendix G

Recommendation: The EPA requests that the project purpose be more clearly articulated and documented in the ROD.

#### Alternatives Analysis

In our comments on the DSEIS, the EPA recommended that Alternatives 5A, 5B, 5C be fully evaluated using the 2006 and 2012 conditions. In response to our comment, it is stated that, “*all reasonable alternatives, with the exception of Alternative 1, were fully evaluated using the 2006 shoreline conditions and simulated via the Delft3D model. See discussion in referenced sections for the explanation for using the 2006 shoreline conditions and the use of the modeling for comparison purposes*”.<sup>4</sup> The EPA notes that this response does not adequately address our concerns about modeling Alternatives 5A, 5B, and 5C using 2012 conditions (same as all other alternatives). The EPA also notes that table 3.1 indicates that Alternatives 5A-C were only modeled using 2006 conditions. It is stated in the FEIS that, “*Alternatives 5A and 5B were not modeled using the 2012 conditions (Table 3.1) since this position of the terminal groin was not supported by property owners and would not likely be approved by the Figure "8" Beach HOA. Alternative 5C was also excluded from the 2012 model setup due to the Figure "8" Beach HOA designating Alternative 5D as its preferred alternative prior to the initiation of the 2012 model simulations*”. The National Environmental Policy Act (NEPA) §1502.14 requires federal agencies to ‘*devote substantial treatment to each alternative considered in detail including, the proposed action so that reviewers may evaluate their relative merits*’.

Recommendation: The EPA is concerned that equal treatment and rigorous evaluation of all the reasonable alternatives may not have been applied and that the Corps consider addressing the 2012 conditions for Alternatives 5A-C in the ROD.

#### Wetlands

In our comments on the DSEIS, we noted potential Section 404 impacts to jurisdictional wetlands associated with the alignment of the terminal groin structure in Alternative 5 D. In our comments we recommended that the FEIS provide a clear description of potential impacts to jurisdictional wetlands (including delineations) and any proposed mitigation for those impacts, if applicable. Based on our review of the FEIS, we note that Figure 3.12 still does not indicate if the wetlands are jurisdictional, however, on p. 72 it is stated that, “*this narrower construction corridor would apply to about 300 feet of the shore anchorage section that passes through jurisdictional wetlands on the north end of Figure Eight Island*”. Furthermore, it is stated on p. 466 that, “*In order to minimize temporary direct impacts to these resources, the orientation of the groin will be designed such that it will span the shortest distance through the wetlands totaling 303 feet (Figure 6.1) and the construction corridor will be reduced to 50 feet*”.

Recommendation: The EPA remains concerned that the FEIS is not clear on potential impacts to jurisdictional wetlands, section 404 permitting requirements for the project, and required mitigation for impacts. We request that the Corps provide this information in the ROD.

#### Threatened and Endangered Species

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<sup>4</sup> Appendix I – Comment 29

Based on the EPA's review of comments provided on August 1, 2016 by the United States Department of Interior (DOI) – Office of the Secretary and the United States Fish and Wildlife Service (FWS) on July 28, 2016, it is clear that new data has been made available concerning the piping plover wintering population. These letters also indicate that the project area is a very high usage area for piping plover and red knot. We also understand that the FWS has recommended denial of the Corps permit for the proposed project.

Recommendation: In light of the regulatory position taken by DOI and FWS on the preferred alternative, the EPA requests that the Corps consider an appropriate selection of the preferred alternative and document its rationale in the ROD.

#### Impacts to Water Quality

Recommendation: The EPA requests that any reported exceedances to water quality standards associated with dredge material disposal activities be reported to the North Carolina Department of Environmental Quality - Water Quality Section and the EPA Region 4's Water Protection Division and be shown as a project commitment in the ROD (and Chief's Report).

#### Greenhouse Gas (GHG) Emissions

Recommendation: In future analyses, the EPA requests that the Corps estimate the direct and indirect GHG emissions caused by the proposal and its alternatives, including construction and operation emissions. Examples of tools for estimating and quantifying GHG emissions can be found in the Council on Environmental Quality's (CEQ) GHG guidance document.<sup>5</sup> These emissions levels can serve as a reasonable proxy for climate change impacts when comparing the alternatives and considering appropriate mitigation measures.

The EPA recommends that future NEPA analyses describe measures to avoid, reduce, and compensate for GHG emissions caused by the proposal, including reasonable alternatives and practicable mitigation opportunities, and disclose the estimated associated GHG reductions. For example, the Corps could consider fuel efficient construction machinery. For the proposed project, the EPA recommends that the Corps consider commitments in the ROD to implement reasonable mitigation measures that would reduce project-related GHG emissions. Any proposed adaptive management strategies should also be identified in the ROD.

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<sup>5</sup> [https://www.whitehouse.gov/sites/whitehouse.gov/files/documents/nepa\\_final\\_ghg\\_guidance.pdf](https://www.whitehouse.gov/sites/whitehouse.gov/files/documents/nepa_final_ghg_guidance.pdf)